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ABSTRACT

The report details results of the 1995 National Household Education Survey concerning home language use, English language proficiency, and participation in English-as-a-Second-Language (ESL) classes. The survey found that about 12 million adults reported speaking a language other than English at home. Of these, almost 11 percent had participated in ESL classes in the 12 previous months. About one-quarter of the remaining group showed interest in the classes. Almost two-thirds had no interest; of these, about half reported speaking English well. Analysis of the data shows patterns in characteristics of this population and ESL class participation or non-participation, and reasons for participation. Information was also gathered about the providers of ESL instruction, use of personal funds for participation, sources of information on ESL classes, which of the interested non-participants knew about class availability, and barriers to participation. Extensive information on the survey methodology and data reliability is also included. Appended tables provide numerical data on characteristics of the population in question, participation rates and reasons, program characteristics, and characteristics of non-participants. Contains 17 references. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

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Statistics in Brief **June 1997**

Participation of Adults in English as a Second Language Classes: 1994-95

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Introduction

While historically the United States has been a 'nation of immigrants,' in recent years the population has become increasingly diverse in language and culture as a result of additional immigration, the resettlement of refugees from other nations, and differential birthrates in the sector of the population speaking languages other than English (Crandall 1993). Chisman (1989) attributes the rapid growth in the language-minority population, in large part, to higher birth rates in families where English is not the primary language and to increases in the immigrant population, particularly among persons of Latino or Asian origin. According to the 1990 Census, there were approximately 25.5 million adults (age 18 and older) in the U.S. who reported speaking a language other than English at home;[1] these people are considered to be language-minority adults. This estimate is up significantly from previous years -- an increase of 7.6 million adults since 1980.

Most of those who speak languages other than English at home are immigrants from Spanish-speaking countries or from countries where an Asian language such as Chinese, Korean, or Japanese is spoken. However, some language-minority adults have lived in the U.S. for many years and some were born in the 50 states or the District of Columbia. The members of this population have varying degrees of English proficiency, with skills ranging from complete fluency to virtually no knowledge of English. Those persons whose English language ability is limited may have difficulty getting jobs, completing further education, or obtaining access to other social and economic opportunities in the U.S.

Bliss (1990) defines limited English proficiency as a limited ability to listen, speak, read, and write in English. It is further defined as a "limited ability to meet basic survival needs and satisfy routine social demands using the language" (Bliss 1990). According to the 1990 Census, 45 percent of the adults who spoke a language other than English reported that they spoke English less than "very well."[2] Thus, many language-minority adults may have limited English reading, writing, and speaking skills, which may limit their ability to function effectively in the workplace and in society.[3]

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The U.S. Department of Education (1991) projects that about 17.4 million adults with limited English proficiency will be living in the Nation by the year 2000. By that time, more than 10 percent of the workforce will consist of immigrants from all over the world, and at least a quarter of them will be adults with limited English proficiency (Chisman 1989).

English as a Second Language (ESL) programs, sometimes called English for Speakers of Other Languages (ESOL), are educational programs designed to help language-minority adults to develop the English language skills necessary to pursue further education, enter or advance in the job market, or enrich their personal and family lives. In addition to language skills, many ESL programs also provide instruction in cultural norms in order to help participants to better adapt to American society (U.S. Department of Education 1995).

The U.S. Department of Education (1995) reports that ESL is the fastest growing area of instruction in the field of adult education. Immigrants are not the only potential participants in adult ESL classes; also included are native-born U.S. citizens of non-English language background. Immigrants, however, do represent the majority of students in federally-funded ESL classes for adults (U.S. Department of Education 1995).

Researchers note that adults with limited English proficiency are often highly motivated to learn English (Chisman 1989; U.S. Department of Education 1995). The demand for ESL classes has been growing each year, resulting in reports of shortages of available programs and long waiting lists of adults for ESL classes in many parts of the country (Bliss 1990; Chisman 1989; Crandall 1993; U.S. Department of Education 1995; Griffith 1993). Thus, access appears to be an issue in ESL participation.

National Household Education Survey

Until recently, little nationally representative information on ESL participation was available. In the 1995 National Household Education Survey (NHES:95), adults age 16 and older were asked what language they first learned to speak. When adults reported a language other than English, they were asked what language they usually spoke at home. An estimated 12 million adults reported currently speaking a language other than English as their primary home language.[4]

In the NHES:95, questions pertaining to participation in ESL classes in the past 12 months were asked of adults whose primary home language was any language other than English.[5] It is important to note that interviews were conducted in English and Spanish only.[6] Thus, the survey underrepresents participation in ESL classes among adults who do not speak either English or Spanish.

The purposes of this report are to present rates of participation in adult ESL classes in 1994-1995, examine how these participation rates are associated with the characteristics of adults, describe some features of ESL participation, and describe the main barriers to adults' participation in ESL.

The NHES:95 was a random-digit-dialing (RDD) telephone survey of the civilian, noninstitutionalized population of the 50 states and the District of Columbia. It was conducted in January through April of 1995. In the Adult Education component of the NHES:95, interviews were conducted with adults age 16 and older who were not currently enrolled in elementary or secondary school. Descriptions of the study methodology are presented in the Survey Methodology and Data Reliability sections of this report.

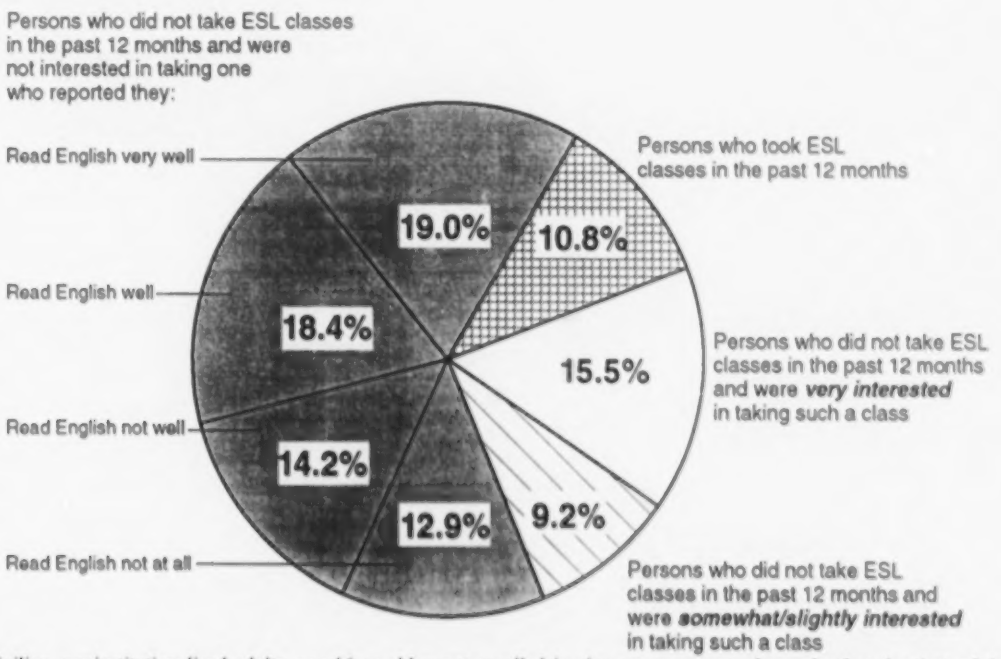
What is the population of interest for ESL classes?

In the NHES:95, about 12 million adults reported usually speaking a language other than English at home.[7] It is these adults who comprise the pool of potential ESL participants for this report. This report takes an inclusive approach to defining the population of interest for ESL classes, so as to capture all participation. That is, among this population of potential ESL participants, there will be a variety of levels of English proficiency as well as experience with ESL participation. For instance, some adults who usually speak a

language other than English may also speak and read English very well and do not need ESL instruction. Of course, others may not be proficient in English and would likely benefit from ESL instruction. Ultimately, this approach for defining the population of interest for ESL classes "casts a wide net," and some persons included in this report may not be in need of ESL instruction.

As shown in figure 1, about 10.8 percent of the adults of interest reported that they had participated in ESL classes in the 12 months prior to the interview. About one-fourth of the adults had not taken ESL classes in the previous year, but were either very interested (15.5 percent), or somewhat or slightly interested (9.2 percent) in doing so. Nearly two thirds of the population of interest reported that they neither participated in ESL classes nor were interested in participation. Over half of these persons reported that they could read English very well or well. Although self-reported ability to read English is not necessarily an indicator of conversational skills, for example, these adults probably speak English well and would not perceive a need for ESL instruction. The rest of the nonparticipating adults who were not interested in ESL classes reported that they read English not well or not at all. There may be many reasons why these persons were not interested in taking ESL classes. They may range from a genuine lack of interest in taking the classes, a person only residing in the United States for a very short time, language barriers that prevent persons from learning about classes, or a perceptions of insurmountable barriers (cost, transportation, child care) that led adults to report that they were not interested in taking such a class.[8] Finally, it is quite possible that some of these adults participated in ESL activities prior to the 12-month period of interest in this survey and have no interest in further participation.

Figure 1.—Participation and interest profile of the population of interest* for English as a Second Language (ESL) classes: 1994-95


Persons who did not take ESL classes in the past 12 months and were not interested in taking one who reported they:
Read English very well
Read English well
Read English not well
Read English not at all
19.0%
18.4%
14.2%
12.9%
10.8%
15.5%
9.2%
Persons who took ESL classes in the past 12 months
Persons who did not take ESL classes in the past 12 months and were very interested in taking such a class
Persons who did not take ESL classes in the past 12 months and were somewhat/slightly interested in taking such a class

*Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview, and whose primary language at home was any language other than English.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.

Who participates in ESL classes?

Table 1 shows the relationships between the characteristics of the population of interest and ESL participation in the past 12 months. Despite reported growth in ESL instruction availability, Alister (1992) notes that a large majority of language-minority persons are not involved in educational activities that would help them acquire English language skills. In the NHES:95, only about 11 percent of the population of interest (1.3 million adults) reported that they had participated in ESL classes in the 12 months prior to the interview.[9]

In the development of this report, a logistic regression analysis was employed to identify which selected characteristics of adults were significantly related to participation in ESL classes.[10] The results of the regression analysis indicated that four characteristics were significantly associated with ESL participation in the previous 12 months. These were age, educational attainment, length of residence in the U.S. (including adults born in the U.S.), and self-reported English reading ability. See the Survey Methodology and Data Reliability section of this report for more information about the regression analysis.

Participants in ESL classes. In general, ESL participants in 1994-1995 were relatively young, had at least a high school education, and had lived in the U.S. for 5 years or less (see table 1). The participation rate for adults ages 16 to 25 years old was 18.6 percent, and this rate dropped to 4 percent for adults age 46 or older. Those persons ages 16 to 25 and ages 26 to 35 were more likely to participate than those over age 45. Adults with a high school diploma or more education were more likely to participate in ESL classes than adults without a high school diploma. Also, as will be discussed later, a substantial minority of participants reported that they were taking ESL classes as part of a college program, which is consistent with their being relatively young and having at least a high school education; however, some older adults also reported taking ESL as part of a college program. This may reflect a class location at a college rather than the student's enrollment in a degree program at a college or university.

Participation in ESL is also associated with the length of time an adult has lived in the United States. Adults who had lived in the United States for 5 years or less were more likely to participate in ESL classes in the past 12 months than adults who had lived in the United States for 6 years or longer or who were born in this country. This difference in participation rates may reflect greater fluency in English among adults who were born in this country or who have been long-time residents, compared with relatively recent immigrants. In addition, longer-term residents who reported their primary language at home is a language other than English may also have been speaking English at home and in other places, such as in the workplace, for many years.

Among adults whose primary home language is not English, participation rates were higher among adults who reported that they do not read English well (15 percent) or they read English well (12 percent) than among adults whose self-reported English reading ability was "very well" (5 percent) in the past 12 months prior to the interview. Since there is some evidence that respondent-reported language proficiency is fairly reliable (U.S. Department of Education 1987), it is likely that many of those nonparticipants who reported that they read English very well do not need ESL instruction.

The patterns of findings for both Spanish-speakers and speakers of other languages are similar to those observed for all adults with non-English primary home languages. In both of these groups, rates of participation in ESL classes are higher among those who reported that they do not read English well than among those who reported that they read English very well.

Nonparticipants in ESL classes. For analysis purposes, nonparticipants were divided into two groups – those who had an interest in taking ESL classes and those who did not. About 27.7 percent of nonparticipants reported that they were interested in taking ESL classes in the past 12 months. Nonparticipating adults ages 26 to 35 and ages 36 to 45 were more likely than those age

46 or older to report that they were interested in taking ESL classes. In addition, those ages 26 to 35 were more likely than younger adults ages 16 to 25 to report an interest in ESL classes. The slightly higher participation rates among adults age 25 and younger, noted earlier, may indicate that relatively more of those who are interested in taking ESL classes in this age group actually do participate, leaving relatively fewer interested nonparticipants among this population.

As noted earlier, recent immigrants participate in ESL at higher rates than those persons who have lived in the U.S. for many years or who were born in the U.S. The findings concerning the interest of nonparticipants are consistent with the findings concerning participation rates. Nonparticipating adults who have been in the U.S. for shorter periods of time are more likely than natives or persons residing in the U.S. for 25 years or more to report that they are interested in taking ESL classes. Again, it is likely that this is related to greater fluency in English among native-born non-English speakers and among long-time residents, reflecting less need for ESL classes.

Nonparticipating adults who reported that they read English "very well" were less likely to express interest in taking ESL classes than those who reported their reading ability in English as "well," "not well," or "not at all". As noted previously, probably persons who rate their English reading proficiency as high are less likely to be in need of ESL classes. Similarly, among nonparticipating adults with Spanish-language backgrounds, adults who reported that they already read English "very well" were less likely to express interest in taking ESL classes than those who reported their reading ability in English as "well," "not well," or "not at all."

Why do adults participate in ESL classes?

Table 2 addresses selected characteristics of ESL participants and their reasons for participating in the previous 12 months. Participants were divided into two groups representing those who took part in ESL classes as part of a college program (about 42 percent of participants) and those who were *not* taking their ESL classes as part of a college program (about 58 percent of participants). The adults in this second group were asked about the main reason for their participation.

ESL classes as part of college attendance. Adults across all age categories participated in ESL classes as part of a college program. No significant differences in the characteristics of the persons could be observed in rates of participation in ESL as part of a college program due to small sample sizes. However, some general patterns appear in these data. Persons who have lived in the U.S. for 10 years or more and persons with lower incomes appear to participate in ESL as part of a college program at lower rates than other adults.

Other major reasons for participation. Improving communication skills was most often cited as the main reason for participation by those taking ESL classes that were not part of a college program (table 2). About 29 percent of all ESL participants took ESL classes to improve English communication skills and about 14 percent reported a personal, family, or social reason. The remainder (15 percent) reported that they took ESL classes for some other main reason, such as improving, advancing, or keeping up to date on a current job, training for a new job or career, improving basic skills, meeting a requirement for an academic credential, or preparation for the U.S. citizenship test.

Due to small sample sizes, none of the differences in the main reason for participation across adult characteristics are significant. However, the general pattern observed for the main reason for participation, discussed above, is also observed across adult characteristics. That is, with few exceptions, improving communication skills is the primary reason mentioned.

What are the characteristics of ESL participation?

Those adults who participated in ESL classes that were *not* part of a college program were asked

about some access related considerations for ESL classes. Below, three aspects of participation in ESL classes are discussed: (1) the provider of the ESL instruction, (2) personal expenses for participating in ESL classes, and (3) sources of information about ESL classes.

Instructional providers. A wide variety of organizations and institutions provided ESL instruction. In the NHES:95, nearly two-thirds of the participating adults who were taking ESL classes that were not part of a college program reported that their ESL classes were offered by educational institutions, including elementary and secondary schools, colleges, and universities (table 3). (Note that many colleges and universities provide non-credit ESL classes that may be taken by persons who are not degree seekers.) About one-third of the participants reported that they took ESL classes offered by business or industry, community organizations, government agencies (federal, state, or local), or other organizations.

Personal expenses. Among those who took ESL classes outside of a college or university program, slightly more than one-third spent none of their own money for ESL classes, and another third spent less than $100, including tuition, books, transportation, child care, and other expenses. Those who reported spending none of their own money may have attended no-cost ESL classes, may have had employer support, or may have received financial assistance from other sources, such as family members. About 29 percent of the participants spent more than $100. For those who did pay for ESL classes, the average amount of personal expenses was $185 (not shown in tables).

Sources of information on ESL classes. Bliss (1990) notes that news of ESL class offerings travels mainly by word of mouth. The NHES data are consistent with this assertion; about 74 percent of the ESL participants reported that they learned about ESL classes from friends, family members, neighbors, or employers. The remaining 26 percent of the participants learned about their ESL classes from newspapers, radio, posters, or some other source.

Which interested nonparticipants know about available ESL classes?

Table 4 shows characteristics of interested nonparticipants who knew or did not know of ESL classes they could take. Of the 3 million nonparticipating adults who were interested in taking ESL classes, most (58.8 percent) reported that they did not know of any classes they could have taken in the past 12 months. Adults who were less likely to know of ESL classes tended to be age 16 to 35 years old (65.6 percent), to be male (62.8 percent), to have less than a high school diploma (61.6 percent), to be unemployed or not in the labor force (61.2 percent), to have incomes of $20,000 or less, and to read English not well or not at all.

What are the main barriers to participation in ESL classes?[11]

Those adults who were interested in and knew of ESL classes were asked to identify the main barrier to their participation in ESL. Time was reported to be the main barrier by 40 percent of adults, money was cited by 26 percent of adults, and child care and/or transportation by 23 percent of adults (table 5).

While table 5 also presents the reported main barrier by adult characteristics, few differences are significant because of small sample sizes. Women were more likely than men to report child care or transportation as their main barriers. This finding is consistent with a study by Alister (1992), who found that lack of on-site child care or transportation were two of the most important barriers for immigrant women. Time was more frequently perceived as the main barrier by employed adults than by adults who were not employed or not in the labor force[12]. On the other hand, adults who were unemployed or not in the labor force were more likely to report child care or transportation as the main barrier than adults who were employed. This suggests the possibility that adults who are not employed or not in the labor force may have fewer resources for child care or transportation than those who have jobs.

Summary

About 12 million adults in the U.S. usually spoke a language other than English at home in 1995. About 11 percent of these adults participated in ESL classes in the 12 months prior to the NHES:95 interview. Adults under age 45, those with a high school diploma or more education, and recent immigrants were more likely to participate in ESL. As would be expected, both participation in ESL and interest in possible participation were lower among adults who reported that they read English very well, who had lived in the U.S. for many years, or who were born in the U.S. Evidence that respondent-reported language fluency is fairly reliable suggests that those who said that they read English very well were, in fact, less likely to need ESL instruction. Those who have lived in the U.S. for a long time or were born here may be sufficiently fluent in English that they do not need ESL instruction. Many of these adults may have taken ESL classes outside the 12-month period covered in this study. Also, some long-term residents who speak a language other than English may live in immigrant communities where they have friends or relatives who translate for them when necessary.

About 42 percent of ESL participants took these classes as part of a college program. Among the remaining 58 percent of participants, slightly more than one-third spent none of their own money for ESL classes, and another third spent less than $100. About two-thirds of those taking ESL outside of college programs did so at educational institutions. The remaining third took their ESL classes at businesses, community organizations, and other locations.

About 40 percent of interested nonparticipants reported that time was the main barrier to participation in ESL classes, 26 percent reported cost as the main barrier, and 23 percent reported child care and/or transportation. Women were more likely than men to cite child care and/or transportation as the main barrier. In addition, those who were unemployed or not in the labor force were more likely to cite child care or transportation as a barrier than were working adults.

Survey Methodology and Data Reliability

The 1995 National Household Education Survey (NHES) was a telephone survey conducted by the U.S. Department of Education's National Center for Education Statistics (NCES). Data collection took place from January through April of 1995. The sample is nationally representative of all civilian, noninstitutionalized persons in the 50 states and the District of Columbia. This sample was selected using random-digit-dialing (RDD) methods and included persons living in households with telephones. The data were collected using computer-assisted telephone interviewing (CATI) technology. This section provides a brief description of the study methodology; further details appear in the *National Household Education Survey of 1995: Adult Education Data File User's Manual* (Collins et al. 1996).

The Adult Education (AE) component of the NHES:95, which is the basis of this report, included interviews with a sample of civilian adults who were age 16 and older and not enrolled in elementary or secondary school at the time of the interviews. A screening interview (the Screener) was administered to an adult member of the household to collect the information required for sampling household members for extended interviews. Adults who did not receive a high school diploma or its equivalent and who had participated in an educational activity in the previous 12 months were sampled at higher rates than other adults. In general, one adult was selected per household. However, up to two adults were eligible to be sampled in households in which any adult was classified as a low-education participant. Weighting procedures were used to adjust for differences in probabilities of selection.

In the adult education interview, information was collected about educational attainment, participation in a wide range of education activities in the previous 12 months, and labor force participation. The only person who could respond to the adult education interview was the sampled adult him/herself; multiple attempts were made to complete interviews with persons not available at the time of selection. Interviews

were conducted in both English and Spanish. In the NHES:95, 19,722 adult education interviews were completed. A total of 1,427 respondents identified a language other than English as the language they spoke most often at home, and thus were asked questions pertaining to participation in ESL classes.

While this report focuses on participation of adults in ESL classes and barriers to that participation, the data also include information on participation in five additional types of adult education activities (i.e., basic skills education, credential programs, apprenticeship, work-related courses, and personal development courses) including the role of employers as providers and sponsors of educational activities, and the reasons adults participate.

Language problem resolution. As noted earlier, the NHES:95 interview was conducted in English and Spanish. The questionnaire was translated into Spanish, a Spanish version of the CATI instrument was programmed, and bilingual interviewers were trained to complete the interview in either English or Spanish.

In the NHES:95, cases classified as non-English speaking were placed in a separate work category so that only the trained, bilingual interviewers could access them for follow-up calls. If a bilingual interviewer encountered a Spanish-speaking respondent in the initial contact, the interviewer immediately began to conduct the interview in Spanish.

A total of 1,633 Screeners were classified by the first interviewer making contact as Spanish-speaking. Eventually, 1,300 of these cases were completed, 95 percent of which were completed in Spanish. About 80 percent of all Spanish-classified, language-problem cases were finalized as completes, somewhat higher than the overall completion rate for the Screener.

The completion rate for the 706 cases identified as speaking some language other than English or Spanish was only about 28 percent. A low completion rate for these types of cases was expected since the interview was conducted only in English and Spanish. Additional details on survey response can be found in *Unit and Item Response Rates, Weighting, and Imputation Procedures in the 1995 National Household Education Survey* (Brick and Broene forthcoming).

Logistic regression analysis. The variables presented in table 1 were subjected to a logistic regression analysis in order to identify whether the adult characteristics were each significantly related to participation in ESL classes when other variables of interest were included in the model (table 6). The procedure used for this analysis was WESLOG, which is a software program using a replication method to take into account complex sample designs. A main effects model was used for this procedure, because the intent was to identify variables significantly associated with participation, and not to develop an analytical model that explains or predicts participation.

The results of the regression analysis indicated that four variables were significantly associated with participation in ESL classes at the 95 percent confidence interval level. These variables include age, having a high school diploma, whether born in the U.S., and self-reported reading ability in English as "very well" or "well." The other variables (e.g., household income of $20,000 or less, Spanish as the primary language at home, and whether employed or not) were not found to be significantly associated with ESL participation once other variables were controlled. The parameter estimates and their *t* values for the adult characteristics are shown in table 6.

Data reliability. Estimates produced using data from the NHES:95 are subject to two types of error, sampling errors and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from a sample rather than a census of the population.

Nonsampling errors. Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of

nonsampling errors are typically problems like unit and item nonresponse, the differences in respondents' interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.

In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. This is particularly problematic in random-digit-dialing (RDD) surveys because so little is known about the sampled telephone numbers and households (Groves et al. 1988). Since nonresponse is an important source of nonsampling error in the NHES:95, an NCES Working Paper, *Unit and Item Response Rates, Weighting, and Imputation Procedures in the 1995 National Household Education Survey* (Brick and Broene forthcoming), is being prepared to address this issue. The results of this research uncovered no large response biases.

In the NHES:95, efforts were made to prevent nonsampling errors from occurring and to compensate for them where possible. For instance, during the survey design phase, focus groups and cognitive laboratory interviews were conducted for the purpose of assessing respondent knowledge of the topics, comprehension of questions and terms, and the sensitivity of items. For a discussion of the use of cognitive laboratory research in the NHES in general, see *Use of Cognitive Laboratories and Recorded Interviews in the National Household Education Survey* (Nolin and Chandler 1996). The design phase also included a multiphase field test in which about 550 adult education interviews were conducted. A special effort was made to include adults whose primary language at home was any language other than English (in a "seeded" sample) for testing questions pertaining to ESL classes.

An important source of nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 95 percent of all adults age 16 and older live in households with telephones. Noncoverage is associated with socioeconomic status, such that persons with lower education and/or lower income levels are more likely to live in nontelephone households. Moreover, the population of interest for this report -- the language minority population -- are of low socioeconomic status and are likely among those who live in households without telephones. More information can be found in *Undercoverage Bias in Estimation of Characteristics of Adults and 0-to 2-Year-Olds in the 1995 National Household Education Survey* (Brick 1996). Estimation procedures were used to help reduce the bias in the estimates associated with excluding the 5 percent of adults who do not live in telephone households.[13]

In the NHES:95 AE survey administration, interviews were conducted in English and Spanish only. Thus, adults who do not speak English or Spanish could not be interviewed. Readers should be aware of possible underreporting of participation in ESL classes due to this coverage limitation (Kim et at. 1996).

Response rates. In the NHES:95, Screeners were completed with 45,465 households, with a response rate of 73.3 percent. Of the 23,969 adults sampled for the Adult Education component, 80 percent (19,722) completed the interview. Thus, the overall response rate for the adult education interview is 58.6 percent (the product of the Screener response rate and the adult education interview completion rate).

As noted above, under "language problem resolution," the survey response rates were somewhat higher than the overall screening response rate for households identified by interviewers as Spanish-speaking. Specifically, the completion rate for Spanish-speaking households was 80 percent, compared to 73 percent overall. Separate AE interview response rates are not available for Spanish-speaking households, because the language status of sampled adults who were not reached for an interview is unknown for nonrespondents.

For the adult education interview, item nonresponse (the failure to complete some items in an otherwise completed interview) was very low for most items. The item response rates for all variables in this report range from 79 percent

to 100 percent; while most are less than 98 percent.

Sampling errors. The sample of telephone households selected for the NHES:95 is just one of many possible samples that could have been selected. Therefore, estimates produced from the NHES:95 sample may differ from estimates that would have been produced from other samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic; standard errors for estimates presented in this report were computed using a jackknife replication method. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a population parameter obtained from a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent; and that the difference would be less than 1.96 standard errors, is about 95 percent.

Standard errors for all of the estimates are presented in the tables. These standard errors can be used to produce confidence intervals. For example, an estimated 10.8 percent of adults participated in ESL classes in the previous 12 months, and this figure has an estimated standard error of .90. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 9.0 to 12.6 percent (10.8 ± 1.96 (.90)). That is, in 95 out of 100 samples from the same population, the population parameter should fall within the confidence intervals so constructed.

The tests of significance used in this analysis are based on Chi-square tests for bivariate relationships and Student's *t* statistics for the comparison of individual estimates. The Rao-Scott Chi-square test was used to take into account the complex sample design. A Bonferroni adjustment was also used to correct Student's *t* tests for multiple comparisons. This method adjusts the significance level for the total number of comparisons made with a particular classification variable. As the number of comparisons increases, it becomes more likely that at least one of the estimated differences will be significant merely by chance, that is, it will be erroneously identified as different from zero. Even when there is no statistical difference between the means or percentages being compared, there is a 5 percent chance of getting a significant *t* value of 1.96 from sampling error alone. As the number of comparisons increases, the chance of making this type of error also increases. All the differences cited in this report are significant at the .05 level of significance after a Bonferroni adjustment.

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Endnotes

[1]Special tabulation from the 1990 Census conducted by Westat, Inc. This estimate represents about 14 percent of the 1990 total adult population (age 18 years and older).

[2]Special tabulation from the 1990 Census conducted by Westat, Inc.

[3]A study of English-language proficiency conducted by the U.S. Bureau of Census indicated that respondent-reported assessments of language ability were fairly reliable (U.S. Department of Education 1987).

[4]Only 56 of the 1,427 persons who responded to the ESL questions reported speaking English and another language equally (e.g., both Spanish and English or English and Chinese) at home.

[5]Respondents may have previously taken ESL classes on which the survey would not report because information was not collected about participation in ESL classes prior to the 12-month period covered in the interview.

[6]Because of this operational limitation of the survey, the household screening completion rate for 1.2 percent of the households in which respondents were initially identified as speaking a language other than English or Spanish was 28 percent, compared with a completion rate of 77 percent for English-speaking or Spanish-speaking households. More information can be found in the Language Problem Resolution discussion in the methodology section of this report.

[7]If respondents reported that they spoke a language other than English most at home, information regarding the specific name of the language was collected. Wide ranges of languages were reported by the respondents and each language was coded into two categories (i.e., Spanish and other language) during the development of this report.

[8]Only persons who indicated that they were interested in taking ESL classes were asked questions later in the survey about knowledge of classes or about barriers to taking classes.

[9]Information was collected for the 12 months prior to the interview. Information about any previous participation in ESL classes was not asked.

[10]The regression model included six characteristics of adults (i.e., age, sex, whether the adult had a high school diploma, whether the adult was employed, whether household income was less than $20,000, whether the adult was born in the U.S., whether Spanish was the primary language spoken at home, and self-reported reading ability in English was "very well" or "well"). The results of the regression analysis are provided in table 6.

[11]Two studies, a reinterview study and a response bias study, were undertaken as part of a set of activities to assess data quality in the NHES:95. Readers who are interested in additional information on the reinterview study and the bias study may wish to review two NCES Working Papers: *The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component* (Working Paper 96-14) and *Estimation of Response Bias in the NHES:95 Adult Education Survey* (Working Paper 96-13).

[12]Those not employed or not in the labor force include adults who are neither working nor actively looking for work (e.g., retirees, homemakers, students, the ill and disabled (Cohany et al. 1994).

[13]For additional information on telephone coverage issues and estimation procedures to correct for coverage biases, see Brick and Broene (forthcoming) and Groves et al. (1988).

References

Alister, C. (1992). Access to literacy education for language minority adults. *ERIC Digest*. Washington, DC: Center for Applied Linguistics.

Bliss, W.B. (1990). "Meeting the demand for ESL instruction: A response to demographics." in F.P. Chisman and Associates, (*Eds.*). *Leadership for Literacy*. San Francisco: Jossey-Bass, pp. 171-197.

Brick, J.M. (1996). *Undercoverage Bias in Estimation of Characteristics of Adults and 0- to 2-Year-Olds in the 1995 National Household Education Survey*. NCES Working Paper 96-29. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Brick, J.M., and Broene, P. (forthcoming). *Unit and Item Response Rates, Weighting, and Imputation Procedures in the 1995 National Household Education Survey*. NCES Working Paper. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Brick, J.M., Kim, K., Nolin, M.J., and Collins, M.A. (1996). *Estimation of Response Bias in the NHES:95 Adult Education Survey*. NCES Working Paper 96-13. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Brick, J.M., Wernimont, J., and Montes, M. (1996). *The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component*. NCES Working Paper 96-14. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Chisman, F.P. (1989). *Jump Start: The Federal Role in Adult Literacy Education*. Washington, DC: The Southport Institute.

Cohany, S.R., Polivka, A.E., and Rothgeb, J.M. (1994). *Revisions in the Current Population Survey Effective January 1994*. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics.

Collins, A.M., Brick, J.M., Kim, K., Gilmore, S., and Stowe, P. (1996). *National Household Education Survey of 1995: Adult Education Data File User's Manual*. NCES Publication No. 96-826. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Crandall, J. (1993). *Improving the Quality of Adult ESL Programs: Building the Nation's Capacity to Meet the Educational and Occupational Needs of Adults with Limited English Proficiencies*. Background Paper Prepared for Project on English as a Second Language Service for Adults. Washington, DC: Southport Institute for Policy Analysis.

Griffith, S. (1993, September 28). Immigrants overwhelming English courses for adults. *The Washington Post*, pp. E1, E5.

Groves, R.M., Biemer, P.P., Lyberg, L.E., Massey, J.T., Nicholls, W.L., and Waksberg, J. (Eds.). (1988). *Telephone Survey Methodology*. New York, NY: John Wiley & Sons.

Kim, K., Loomis, L.S., Collins, M.A., and Chandler, K. (1996). *Comparison of Estimates from the 1995 National Household Education Survey*. NCES Working Paper 96-30. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Nolin, M.J., and Chandler, K. (1996). *Use of Cognitive Laboratories and Recorded Interviews in the National Household Education Survey*. NCES Publication No. 96-332. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

U.S. Department of Education. (1987). *Numbers of Limited English Proficient Children: National, State, and Language-Specific Estimates*. Washington, DC: Office of Planning, Budget and Evaluation.

U.S. Department of Education. (1991). *Teaching Adults with Limited English Skills: Progress and Challenges*. Washington, DC: Office of Vocational and Adult Education.

U.S. Department of Education. (1995). *Adult Education for Limited English Proficient Adults*. Washington, DC: Office of Vocational and Adult Education, Adult Learning and Literacy Clearinghouse.

Table 1.—Percent and number of the population of interest for English as a Second Language (ESL) classes[1], by participation status and adult characteristics: 1994-95

Characteristics	Number of adults[1] (in thousands)		Participants		Nonparticipants					
					Number of adults (in thousands)		Interested in taking ESL classes		Not interested in taking ESL classes	
	Number	s.e.	Percent	s.e.	Number	s.e.	Percent of Nonparticipants	s.e.	Percent of Nonparticipants	s.e.
Total	12,078	291	10.8	.90	10,777	288	27.7	1.66	72.3	1.66
Age										
16 to 25 years	2,104	138	18.6	2.87	1,712	127	21.8	2.89	78.2	2.89
26 to 35 years	3,443	169	13.2	1.90	2,988	184	34.5	3.60	65.5	3.60
36 to 45 years	3,157	204	10.1	2.13	2,839	174	32.7	3.13	67.3	3.13
46 years or older	3,374	252	4.0	1.13	3,238	244	20.3	2.86	79.7	2.86
Educational attainment										
Less than a high school diploma or equivalent	4,947	240	7.6	1.27	4,571	247	30.6	2.98	69.4	2.98
High school diploma or equivalent	4,498	200	14.3	1.70	3,855	193	27.9	2.47	72.1	2.47
Some postsecondary education or more education	2,633	166	10.7	1.73	2,351	161	21.8	3.21	78.2	3.21
Labor force status										
Employed	5,999	231	9.6	1.29	5,424	224	26.9	2.44	73.1	2.44
Unemployed	1,082	117	17.5	3.97	894	120	36.0	6.41	64.0	6.41
Not in the labor force	4,997	198	10.8	1.38	4,460	191	27.1	2.34	72.9	2.34
Household income										
$20,000 or less	6,058	218	12.2	1.69	5,316	225	30.1	2.37	69.9	2.37
$20,001 or more	6,020	194	9.3	1.11	5,461	200	25.4	2.42	74.6	2.42
How long lived in the U.S.										
2 years or less	973	107	31.4	5.66	668	91	40.9	6.71	59.1	6.71
3 to 5 years	1,354	118	27.1	4.11	987	96	33.7	6.02	66.3	6.02
6 to 9 years	1,878	117	9.3	1.80	1,703	113	39.0	3.60	61.0	3.60
10 to 24 years	4,202	222	8.8	1.27	3,832	220	33.2	2.67	66.8	2.67
25 years or longer	1,731	169	2.9	1.45	1,680	167	14.5	3.03	85.4	3.03
Born in the U.S.	1,939	164	1.7	.57	1,905	162	10.7	2.86	89.3	2.86
Self-reported reading ability in English by main language										
Total	12,078	291	10.8	.90	10,777	288	27.7	1.66	72.3	1.66
Read English "very well"	2,630	170	4.5	1.35	2,513	169	8.8	2.30	91.2	2.30
Read English "well"	3,340	141	11.7	1.58	2,948	144	24.6	2.81	75.4	2.81
Read English "not well"	3,557	203	15.6	1.97	3,001	202	42.8	3.29	57.2	3.29
Read English "not at all"	2,551	183	9.3	2.27	2,314	187	32.6	3.55	67.4	3.55
Spanish	8,188	195	10.7	1.16	7,311	225	32.6	2.19	67.4	2.19
Read English "very well"	1,213	111	3.3	1.46	1,173	109	7.9	2.70	92.1	2.70
Read English "well"	1,626	116	10.4	2.34	1,458	117	28.4	3.31	71.6	3.31
Read English "not well"	2,839	158	15.2	2.27	2,407	167	46.6	3.86	53.4	3.86
Read English "not at all"	2,510	178	9.4	2.30	2,273	181	33.2	3.65	66.8	3.65
All other languages	3,890	208	10.9	1.65	3,466	197	17.5	2.74	82.6	2.74
Read English "very well"	1,417	137	5.5	2.08	1,340	135	9.7	3.93	90.3	3.93
Read English "well"	1,714	140	13.0	2.43	1,490	139	21.0	4.43	79.0	4.43
Read English "not well"	718	112	17.2	4.24	594	94	27.4	6.15	72.6	6.15
Read English "not at all"	42	28	--	--	--	--	--	--	--	--

[1]Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview, whose primary language at home was any language other than English.

--Unweighted number of cases is less than 30.

NOTE: s.e. is standard error. SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.

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Table 2.—Percent of adults[1] who participated in English as a Second Language (ESL) classes, by reasons for participation and participant characteristics: 1994-95

Characteristics of participants	Number of participants		ESL participation as part of college attendance		Other main reasons for ESL participation[2]							
					Total		To improve communication skills		A personal, family, or social reason		Other main reasons[3]	
	Number	s.e.	Percent	s.e	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	1,301	112	41.9	4.44	58.1	4.44	28.9	4.19	14.1	3.26	15.1	2.98
Age												
16 to 25 years	392	65	45.5	7.38	54.5	7.38	17.2	6.06	14.2	7.48	23.1	7.24
26 to 35 years	455	59	42.4	8.11	57.6	8.11	32.8	7.59	10.5	3.30	14.3	4.03
36 years or older	454	78	38.2	6.10	61.8	6.10	35.0	7.09	17.7	5.86	9.1	3.05
Educational attainment												
Less than a high school diploma or equivalent	376	60	31.6	7.44	68.4	7.44	33.9	6.90	13.5	4.83	21.0	6.73
High school diploma or equivalent	643	80	48.8	7.36	51.2	7.36	20.2	5.56	15.9	5.92	15.2	4.94
Some postsecondary education or more education	282	47	39.8	10.46	60.2	10.46	41.8	11.01	11.1	7.02	7.3	3.21
Labor force status												
Employed	575	80	47.3	7.12	52.7	7.12	29.5	6.92	12.5	5.33	10.7	3.55
Unemployed	189	39	39.2	11.57	60.8	11.57	29.0	9.68	9.4	6.23	22.5	8.62
Not in the labor force	538	71	37.0	6.80	63.0	6.80	28.1	6.51	17.5	5.29	17.3	5.20
Household income												
$20,000 or less	594	99	39.3	6.17	60.7	6.17	31.5	5.12	13.1	4.24	16.2	3.73
$20,001 or more	419	75	45.3	7.38	54.7	7.38	25.4	6.18	15.5	5.76	13.8	4.94
How long lived in the U.S.												
2 years or less	305	64	43.4	9.63	56.6	9.63	24.4	9.03	15.1	9.82	17.0	8.01
3 to 5 years	367	67	55.2	10.17	44.8	10.17	21.9	9.09	9.5	4.75	13.4	6.57
6 to 9 years	174	35	50.0	11.02	50.0	11.02	29.9	11.16	9.5	4.23	10.5	4.69
10 years or longer	421	55	27.5	6.04	72.5	6.04	39.1	8.11	18.9	6.42	14.5	4.74
Born in the U.S.	34	11	--	--	--	--	--	--	--	--	--	--
Self-reported English reading ability												
"Very well" or "well"	509	62	48.1	7.27	51.9	7.27	36.1	6.70	6.6	3.68	9.2	3.37
"Not well" or "not at all"	792	85	37.9	6.63	62.1	6.63	24.2	5.64	18.9	4.81	19.0	4.32

[1]Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview, whose primary language at home was any language other than English.

--Unweighted number of cases is less than 30.
NOTE: s.e. is standard error.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.

Table 3.—Number and percent of adults[1] who participated in English as a Second Language (ESL) classes outside of a college program, by characteristics of participation: 1994-95

Characteristics of participation	Participants in ESL classes[2]			
	Number (in thousands)	s.e.	Percent	s.e.
Total	756	81	100.0	--
Instructional provider				
School/college/university	499	62	65.9	5.90
Private organization/business/federal, state, or local government/others	258	56	34.1	5.90
Personal expenses				
None	280	60	37.1	7.03
$1 to $100	257	50	34.0	5.82
$101 or more	219	53	28.9	6.13
Source of ESL class information				
Family/friends/neighbor/employer/school	557	70	73.7	4.83
Newspaper/radio/TV/poster flyer	199	41	26.3	4.83

[1]Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview, whose primary language at home was any language other than English.

[2]Include the participants in ESL classes which were not part of a college program, excludes persons enrolled in college ESL program.

[3]Includes improving, advancing, or keeping up to date on current job; training for a new job or a new career; improving basic reading, writing, or math skills; meeting a requirement for a diploma, degree, or certificate of completion; or some other main reason.

NOTE: s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.

Table 4.—Number and percent of nonparticipating adults* who were interested in taking English as a Second Language (ESL) classes, by adult characteristics: 1994-95

Characteristics	Number of nonparticipants who were interested in taking ESL classes (in thousands)		Adults who knew of ESL classes		Adults who did not know of any ESL classes	
	Number	s.e.	Percent	s.e.	Percent	s.e.
Total	2,988	198	41.2	3.37	58.8	3.37
Age[3]						
16 to 35 years	1,403	147	34.5	4.08	65.5	4.08
36 years and older	1,585	142	47.1	4.08	52.9	4.08
Sex						
Male	1,507	163	37.2	5.24	62.8	5.24
Female	1,481	113	45.4	3.91	54.6	3.91
Educational attainment						
Less than a high school diploma or equivalent	1,400	172	38.4	4.75	61.6	4.75
High school diploma or more education	1,588	137	43.7	4.74	56.3	4.74
Labor force status						
Employed	1,457	143	43.8	4.82	56.2	4.82
Not employed or not in the labor force	1,531	123	38.8	4.28	61.2	4.28
Household income						
$20,000 or less	1,599	152	38.6	4.28	61.4	4.28
$20,001 or more	1,389	140	44.2	5.23	55.8	5.23
Self-reported English reading ability						
"Very well" or "well"	948	105	41.8	5.35	58.2	5.35
"Not well" or "not at all"	2,040	183	41.0	4.22	59.0	4.22

*Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview, whose primary language at home was any language other than English.

NOTE: s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.

Table 5.—Number and percent of nonparticipating adults[1] who reported a main barrier to participating in English as a Second Language (ESL) classes, by adult characteristics: 1994-95

Characteristics of nonparticipants	Number of nonparticipants[2] (in thousands)		Main barriers to participation in ESL classes							
			Time		Money/cost		Child care or Transportation		Other barriers	
	Number	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	1,205	121	40.1	3.89	26.0	4.20	23.4	3.87	10.6	2.79
Age[3]										
16 to 35 years	480	73	40.3	6.92	24.3	5.62	27.4	6.97	7.9	3.46
36 years and older	725	86	40.0	6.24	27.1	6.04	20.7	5.18	12.3	4.41
Sex										
Male	533	79	46.8	7.36	36.2	8.75	2.9	1.94	14.1	5.25
Female	672	85	34.8	5.77	17.9	4.93	39.6	6.50	7.8	3.07
Educational attainment										
Less than a high school diploma or equivalent	515	97	41.2	5.95	20.7	7.15	26.6	6.72	11.5	4.55
High school diploma or more education	690	86	39.3	6.35	29.9	6.85	20.9	5.56	9.8	3.36
Labor force status										
Employed	637	92	53.2	6.11	24.5	5.63	12.0	5.07	10.3	3.99
Not employed or not in the labor force	568	77	25.5	5.68	27.7	6.25	36.1	6.88	10.8	4.13
Household income										
$20,000 or less	618	93	35.4	6.27	27.6	6.39	28.1	5.85	8.9	3.71
$20,001 or more	588	94	45.0	7.72	24.3	6.53	18.4	5.50	12.3	4.49
Self-reported English reading ability										
"Very well" or "well"	396	51	52.6	8.35	21.1	5.99	18.9	6.95	7.4	4.12
"Not well" or "not at all"	809	121	34.0	4.76	28.4	6.37	25.5	4.57	12.1	3.71

[1]Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview, whose primary language at home was any language other than English.

[2]Includes nonparticipating adults who had an interest in taking ESL classes, knew of available classes they could have taken, and reported that one of the following was a major or minor barrier to participation: time, money/cost, child care, transportation, and other main barrier.

[3]Adults aged 35 years or younger were more likely to report child care as their main barrier than adults 36 years or older, indicating that lack of child care is more likely an obstacle for young adults than older adults. Note that the question about child care as the main barrier was only asked of nonparticipating adults who had a child or children under 10 years old.

NOTE: s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.

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Table 6.—Logistic regression analyses of adult characteristics and participation in English as a Second Language (ESL) classes

Parameter	Parameter estimate	ESL Participation (t)
Age	-.05	-5.21*
Sex	.19	.71
Has a high school diploma	.80	3.00*
Employed	-.33	-1.59
Household income less than $20,000	.23	.94
Born in the United States	-1.87	-3.45*
Spanish was the primary language at home	-.20	-.83
Self-reported reading ability in English in English as "very well" or "well"	-.72	-3.31*

*$p < .05$.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), spring 1995.